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ASBESTOS: NEW CONCERNS EPA re-evaluates older home insulation

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Dispatch Environment Reporter

For more than two decades, government health experts have said that the best protection from asbestos is to leave it alone.

Some federal scientists, prompted by unusually high levels of death and disease at a vermiculite mine outside *Libby*, Mont., are rethinking that advice.

The shiny, pinkish-tan ore was used until the early 1980s to produce Zonolite, a form of insulation poured into at least 1 million mostly older homes across America. Vermiculite also is found in lawn and garden products, fireproof sprays for steel construction beams, cement mixtures and animal feed.

The ore isn't hazardous but is contaminated with a form of asbestos that has killed at least 200 miners, family members and residents in *Libby*, a town of 2,600 near the Canadian border.

Testing by federal agencies and private groups has found that tremolite asbestos is a natural contaminant of major vermiculite deposits in the United States: the now-shuttered *Libby* mine, plus two in South Carolina and one in Virginia that are still in production.

Armed with further research showing that even casual handling of Zonolite can suspend tremolite-asbestos fibers in the air, investigators from the U.S. Environmental Protection Agency are urging their bosses to hire professionals to remove vermiculite insulation from hundreds of homes in *Libby*.

EPA officials are trying to avoid having to remove the insulation from other homes across the country, a project that could cost billions of dollars. But they realize that if the government says Zonolite is unsafe for *Libby*, many Americans will wonder whether their attics also pose health hazards.

"It's not a trivial risk," said Christopher Weis, an EPA toxicologist working in *Libby*. "We know it's hurting people, and to not warn the public about the risks would be unethical."

Once tremolite asbestos fibers get into a person's lungs, they can't be coughed out. The chief health concerns are asbestosis, an incurable thickening and scarring of the lungs that gradually suffocates a person, and mesothelioma, a rare but devastating form of lung cancer.

"There is clinical proof that it's a hazard," said Aubrey Miller, a U.S. Public Health Service epidemiologist working in *Libby*. "If people are exposed to it, even for relatively short periods, it can result in disease."



Possible epidemic

W.R. Grace & Co. knew about the asbestos contamination when it bought the *Libby* mine in 1963. So did government health and safety agencies.

Yet nobody warned miners who dug millions of tons of vermiculite out of the ground, workers around the country who processed it and consumers who bought products containing the ore.

Unlike commercial forms of asbestos found in products such as flooring, roofing, brake linings and pipe insulation, Zonolite and other products made from vermiculite weren't supposed to contain asbestos.

But records show that Grace shipped the asbestos-contaminated ore to more than 250 processing plants across the country, including 18 in Ohio, leading government investigators to fear that death and disease has spread well beyond *Libby*.

The Scotts Co., the nation's largest manufacturer of lawn and garden products, was the largest non-Grace recipient of ore from the *Libby* mine, according to EPA officials who have reviewed a database of Grace sales records and shipping invoices.

Vermiculite provided the base for popular lawn fertilizers and herbicides made by the Marysville company, which also mixed the ore with potting soil to help retain moisture.

The Dispatch reported last June that asbestos-contaminated vermiculite contributed to the deaths of at least five workers at the Scotts plant. Tests conducted by the Occupational Safety and Health Administration in the late 1970s found that one in four workers at the plant had lung abnormalities.

Scotts officials have said they were told by a Grace engineer that the vermiculite was contaminated with asbestos in 1971, nine years before the company said it stopped buying ore from the *Libby* mine. Scotts switched to using ore from Virginia and South Carolina, then stopped using it altogether in May.

Health hazard

Estimates are sketchy about how many homes are insulated with Zonolite, which was sold from the 1930s to the early 1980s. The EPA says about 1 million, but Grace executives told the agency in January that the number is closer to 15 million.

Local insulation contractors say vermiculite insulation is commonly found in older homes.

Lee Thacker, a sales representative at Edwards Mooney & Moses on the West Side, said the loose, popcorn-sized insulation was used extensively in Ohio during the 1940s, '50s and '60s. Homeowners could purchase bags of Zonolite at hardware stores or lumber yards and pour it themselves between attic joists.

"Nobody knew it was contaminated with asbestos back then," he said. "Most people in our line of work should know it now, though. When I see that stuff in an attic, I don't even let my crews up there."

Under pressure from Grace executives, EPA Administrator Christie Whitman has delayed a decision about removing vermiculite insulation from homes in *Libby*.

Grace always has insisted publicly that there is nothing hazardous in Zonolite.



"It is safe to handle because it is nonirritating to the skin and lungs," one Zonolite advertisement from the 1950s proclaimed. Bags of the insulation featured a label that said, "No need for mask, gloves or special equipment."

Court records and other documents obtained by The Dispatch tell a different story. They show that Grace has known for more than three decades how microscopic asbestos fibers from the *Libby* mine could sicken and kill people.

In 1956, Montana inspectors concluded that asbestos dust at the mine "is of considerable toxicity." They marked their report "confidential" and limited distribution to mine officials.

Medical exams conducted by Grace during the 1960s showed that many *Libby* miners had lung abnormalities consistent with asbestosis.

A local radiologist who conducted the exams told the company's insurer that the situation "was even more severe, when considering that he was in general examining young, hearty male workmen."

Maryland Casualty advised the company to keep the test results secret but also said that failure to respond to the concerns of state and federal regulators could be costly.

"It has even occurred to me that (Grace's) inability to curb the problem . . . might be alleged at least to have constituted willful and wanton conduct," said a Nov. 25, 1967, memo from the insurer to Grace executives.

Throughout the 1970s, according to internal company memos and letters in court records, Grace executives debated whether consumers should be warned about the asbestos contamination in vermiculite products and what effect that information would have on the company's bottom line.

"We believe that a decision to affix asbestos warning labels to our products would result in substantial sales losses," Grace Executive Vice President E.S. Wood wrote in a May 24, 1977, memo. "The risk of liability to our customers is heightened by the decision not to label our products."

Wood's memo notes that Grace was aware of research showing that "even brief exposures" to asbestos can cause mesothelioma. But the microscopic fibers can be detected only with sophisticated equipment.

"For this reason," Wood wrote, "we are taking the position with all but authorized government authorities that our mixed products are 'nonasbestos' products."

Medical studies documenting the health hazards posed by airborne asbestos fibers led the National Institute for Occupational Safety and Health to conclude in 1976 that exposure to the material is unsafe at any level.

Grace's tests during the 1970s showed that Zonolite could generate airborne asbestos fibers as high as 150 times the regulatory limit for workplace exposures.

But in series of recent correspondence and meetings with EPA officials, the company argued that there is no proof that Zonolite can kill or sicken people.

"Medical and epidemiological data demonstrate that there is no health hazard from sporadic exposure to the trace amounts of asbestos that may be present in products such as ZAI (Zonolite attic insulation),"



William M. Corcoran, Grace vice president for public affairs, wrote in an April 10 letter to the EPA administrator.

Grace contends that if the EPA decides to remove attic insulation in *Libby*, legal and political pressure will build for similar action in other communities. Taxpayers, not Grace, would be forced to pick up the multimillion-dollar tab, the company says.

"Consistent with the law of unintended consequences . . . you will very shortly have a situation on your hands that will divert significant human and financial resources away from real risks to public health and the environment," Corcoran wrote to Whitman.

Proven risk

Government scientists studying the problem say the health risks are real, despite anything Grace executives say today.

Health and safety agencies still say that the best defense is to stay away from asbestos. If Zonolite isn't disturbed, any asbestos fibers imbedded in it won't become airborne and the potential risks will be minimal, the agencies say.

But scientists working in *Libby* fear that homeowners and contractors nationwide are unwittingly exposing themselves and their families to asbestos while remodeling houses that contain vermiculite insulation. They say that even installing a light fixture or ceiling fan through an attic insulated with Zonolite can generate dangerous levels of airborne asbestos fibers.

"Even minimal handling by workers or residents poses a substantial health risk," Dr. Hugh Sloan, an assistant U.S. surgeon general, wrote in an August 2000 letter seeking assistance from the National Institute for Occupational Safety and Health.

Because it can take as long as 40 years from the time of exposure for cancer and other asbestos-related diseases to reveal themselves, the number of people sickened by asbestos-contaminated vermiculite might never be known.

In a 1977 memo, a Grace executive said it would be difficult to determine the number of workers sickened at plants processing *Libby* vermiculite because of the high turnover among workers.

But the company already knew plenty about vermiculite's effects.

"Among present employees with 10 or more years of experience . . . 41.5 percent exhibit asbestosis," according to the 1977 Grace memo. "Among 14 employees with 10 or more years of service in expanding plants which have used *Libby* ore, 28 percent exhibit asbestosis.

"Moreover, there is a fivefold increased risk of lung cancer among retired or ex-employees who worked in the *Libby* mine" as compared with the general population.

Uncertain fate

Today, 25 years after the memo was written, the *Libby* mine is closed, and government investigators have returned, seeking to fix a problem their predecessors knew about but largely ignored.



At the behest of Libby residents, Montana Gov. Judy Martz, a Republican, asked the EPA earlier this year to declare the entire town a federal Superfund site, clearing the way for an extensive cleanup.

Members of an EPA emergency response team found asbestos-contaminated vermiculite throughout Libby, where Grace offered free ore to residents. It was mixed into the soil of gardens, spread on the high-school running track and left in huge piles that residents played in as children.

Nearly one in five residents who took part in an asbestos-screening program showed signs of disease, according to the Agency for Toxic Substances and Disease Registry, an arm of the U.S. Centers for Disease Control and Prevention. The rate of similar abnormalities among the general population ranges from 0.2 percent to 2.3 percent.

Alan Whitehouse, a pulmonologist from nearby Spokane, Wash., has seen 396 patients from *Libby* who either died of asbestos-related diseases or show signs of disease. About 200 are miners, but a quarter had nothing to do with the vermiculite mine.

His findings and other research challenge the long-held views of government regulators and representatives of the asbestos and vermiculite industries, who maintain that a person can't become ill from breathing asbestos fibers unless they are exposed to high levels for many years.

"It is clear from this data that people can obtain severe asbestosis with what would appear to be relatively minimal exposures to tremolite (asbestos)," Whitehouse told the U.S. Senate Health, Education, Labor and Pensions Committee in the summer.

Faced with thousands of lawsuits claiming death or disease caused by exposure to asbestoscontaminated vermiculite, Grace closed the Libby mine in 1990.

The company declared bankruptcy last April as a team of lawyers from across the country assembled a class-action lawsuit on behalf of Americans exposed to Zonolite attic insulation.

The company's fate mirrors Wood's prediction in 1977 that public knowledge of the asbestos contamination would make the company legally vulnerable.

Wood also predicted that the Consumer Product Safety Commission would ban all products containing asbestos, including those made with vermiculite. But the commission never took any action and hasn't warned the public about the potential health hazards.

"CPSC isn't conducting any independent work on this," commission spokesman Ken Giles said. "We're following EPA's lead."

Health problems suffered by miners in Montana and workers at Scotts in Marysville led the EPA to conclude in 1980 that "asbestos-contaminated vermiculite may pose a serious and widespread hazard to workers."

Twenty-two years later, the agency knows even more about the dangers but has done little to share that information with the public.

During a visit to Libby in September, Whitman vowed that her agency's research would be used nationwide.



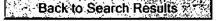
"We want everyone who comes in contact with vermiculite, from homeowners to handymen, to have the information needed to protect themselves and their families," Whitman said.

Seven months later, the EPA's efforts to inform the public about the potential health risks are limited to a page on the agency's Web site: www.epa.gov/opptintr/asbestos/insulation.htm#have.

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Caption: (1) Graphic

- (2) Graphic
- (3) Brian Plonka / The (Spokane, Wash.) Spokesman-Review
- A U.S. Environmental Protection Agency worker enters the sealed home of a Libby, Mont., resident. The federal agency is considering whether to remove asbestos-contaminated insulation from hundreds of Libby homes.



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